LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method for detecting identification media within ~~the~~ a communication range of an antenna for transmitting and receiving RF signals of a read/write unit which operates in accordance with the principle of inductive coupling of an RF field in the MHz frequency band and which has a transmitting path connected directly to the antenna,

a receiving path connected directly to the antenna,

a circuit for RF communication with at least one of a standard transmitting power or ~~less~~ reduced transmitting power, and a logical circuit for evaluating a communication between the read/write unit and an identification medium, ~~characterized in that~~ wherein

a short polling signal, which contains ~~a number of fundamental~~ at least one of unmodulated or force excited oscillations of the RF field, is periodically emitted with the standard transmitting power via the transmitting path and the antenna,

that during the emission of the polling signal, a return signal with at least one of unmodulated or force excited oscillations of the RF field is detected at the antenna,

then the return signal is compared with a reference signal,

and then a communication signal is emitted for detecting an identification medium if the return signal differs from the reference signal.

2. (previously presented) A method according to claim 1, wherein the polling signal is shorter by at least two orders of magnitude than the communication signal.

3. (previously presented) A method according to claim 1, wherein the detection of the return signal is effected via the receiving path.

4. (previously presented) A method according to claim 1, wherein the detection of the return signal is effected via a separate detection path.

5. (previously presented) A method according to claim 1, wherein the comparison of return signal and reference signal is effected by the logical circuit.

6. (previously presented) A method according to claim 1, wherein the comparison of return signal and reference signal is effected in a separate logical circuit.

7. (previously presented) A method according to claim 1, wherein the comparison of return signal and reference signal is effected by means of a separate discrete circuit.

8. (previously presented) A method according to claim 1, wherein the return signal of the current measuring period is used as reference signal for the next measuring period.

9. (previously presented) A method according to claim 1, wherein the reference signal is changed over time in accordance with a stored reference signal profile.

10. (previously presented) A method according to claim 1, wherein the reference signal is self-adapting over time.

11. (previously presented) A method according to claim 1, wherein the amplitudes of return signal and reference signal are compared.

12. (previously presented) A method according to claim 1, wherein the pulse widths of return signal and reference signal are compared.

13. (previously presented) A method according to claim 1, wherein the emission of a communication signal takes place if the return signal is below the reference signal by a defined threshold value.

14. (previously presented) A method according to claim 1, wherein the comparison of return signal and reference signal is effected by analog means via a comparator of a discrete circuit.

15. (previously presented) A method according to claim 1, wherein the comparison of return signal and reference signal, after an A/D conversion, is effected by digital means by the logical circuit or by a separate logical circuit.

16. (previously presented) A method according to claim 13, wherein the threshold value is defined by a comparator or its drive system.

17. (previously presented) A method according to claim 1, wherein there is a defined time delay between the beginning of the emission of a polling signal and the detection of the return signal.

18. (previously presented) A method according to claim 1, wherein the return signal contains at least 10 fundamental oscillations of the RF field.

19. (previously presented) A method according to claim 1, wherein the logical circuit is set from an idle mode into an operating mode before transmitting the polling signal.

20. (previously presented) A method according to claim 1, wherein the communication signal is emitted with a transmitting power reduced by at least a factor of 2.

21. (previously presented) A method according to claim 1, wherein the read/write unit adaptively determines in a self-learning manner whether the communication signal is emitted with standard transmitting power or with reduced transmitting power.

22. (currently amended) A read/write unit for detecting identification media within ~~the~~ a communication range of an antenna for transmitting and receiving RF signals of the read/write unit which operates in accordance with the principle of inductive coupling of an RF field in the MHz frequency band and which has a transmitting path connected directly to the antenna,

a receiving path connected directly to the antenna,

a circuit for RF communication with at least one of a standard transmitting power or ~~less~~ reduced transmitting power, and a logical circuit for evaluating a communication between the read/write unit and an identification medium, ~~characterized in that~~ wherein

a short polling signal, which contains ~~a number of fundamental~~ at least one of unmodulated or force excited oscillations of the RF field, can be periodically emitted with the standard transmitting power via the transmitting path and the antenna,

and during the emission of the polling signal, a return signal with ~~a number of fundamental~~ at least one of unmodulated or force excited oscillations of the RF field can be detected at the antenna,

then the return signal can be compared with a reference signal,

and then a communication signal can be emitted for detecting an identification medium if the return signal differs from the reference signal.